

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/550,280
Source: PCT
Date Processed by STIC: 10/06/2005

ENTERED



PCT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/550,280

DATE: 10/06/2005

TIME: 11:41:37

Input Set : A:\Sequence Listing 2005_1500A.txt
 Output Set: N:\CRF4\10062005\J550280.raw

3 <110> APPLICANT: NIPPON MEDICAL SCHOOL FOUNDATION
 5 <120> TITLE OF INVENTION: Cell death-inducing fusion gene specifically acting on
 cancer and
 6 gene product thereof
 8 <130> FILE REFERENCE: PH-2011-PCT
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/550,280
 C--> 11 <141> CURRENT FILING DATE: 2005-09-23
 13 <150> PRIOR APPLICATION NUMBER: JP2003/081337
 14 <151> PRIOR FILING DATE: 2003-03-24
 16 <160> NUMBER OF SEQ ID NOS: 27
 17 <170> SOFTWARE: PatentIn Ver. 2.1
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 579
 21 <212> TYPE: DNA
 22 <213> ORGANISM: Homo sapiens
 24 <220> FEATURE:
 25 <221> NAME/KEY: CDS
 26 <222> LOCATION: (1)..(579)
 28 <400> SEQUENCE: 1
 29 atg gac ggg tcc ggg gag cag ccc aga ggc ggg ggg ccc acc agc tct 48
 30 Met Asp Gly Ser Gly Glu Gln Pro Arg Gly Gly Pro Thr Ser Ser
 31 1 5 10 15
 33 gag cag atc atc aag aca ggg gcc ctt ttg ctt cag ggt ttc atc cag 96
 34 Glu Gln Ile Met Lys Thr Gly Ala Leu Leu Leu Gln Gly Phe Ile Gln
 35 20 25 30
 37 gat cga gca ggg cga atg ggg ggg gag gca ccc gag ctg gcc ctg gac 144
 38 Asp Arg Ala Gly Arg Met Gly Glu Ala Pro Glu Leu Ala Leu Asp
 39 35 40 45
 41 ccg gtg cct cag gat gcg tcc acc aag aag ctg agc gag tgt ctc aag 192
 42 Pro Val Pro Gln Asp Ala Ser Thr Lys Lys Leu Ser Glu Cys Leu Lys
 43 50 55 60
 45 cgc atc ggg gac gaa ctg gac agt aac atg gag ctg cag agg atg att 240
 46 Arg Ile Gly Asp Glu Leu Asp Ser Asn Met Glu Leu Gln Arg Met Ile
 47 65 70 75 80
 49 gcc gcc gtg gac aca gac tcc ccc cga gag gtc ttt ttc cga gtg gca 288
 50 Ala Ala Val Asp Thr Asp Ser Pro Arg Glu Val Phe Phe Arg Val Ala
 51 85 90 95
 53 gct gac atg ttt tct gac ggc aac ttc aac tgg ggc cgg gtt gtc gcc 336
 54 Ala Asp Met Phe Ser Asp Gly Asn Phe Asn Trp Gly Arg Val Val Ala
 55 100 105 110
 57 ctt ttc tac ttt gcc agc aaa ctg gtg ctc aag gcc ctg tgc acc aag 384
 58 Leu Phe Tyr Phe Ala Ser Lys Leu Val Leu Lys Ala Leu Cys Thr Lys
 59 115 120 125
 61 gtg ccg gaa ctg atc aga acc atc atg ggc tgg aca ttg gac ttc ctc 432

(Pqg-6)

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/550,280

DATE: 10/06/2005

TIME: 11:41:37

Input Set : A:\Sequence Listing 2005_1500A.txt
 Output Set: N:\CRF4\10062005\J550280.raw

```

62 Val Pro Glu Leu Ile Arg Thr Ile Met Gly Trp Thr Leu Asp Phe Leu
63      130          135          140
65 cgg gag cgg ctg ttg ggc tgg atc caa gac cag ggt ggt tgg gac ggc 480
66 Arg Glu Arg Leu Leu Gly Trp Ile Gln Asp Gln Gly Gly Trp Asp Gly
67 145          150          155          160
69 ctc ctc tcc tac ttt ggg acg ccc acg tgg cag acc gtg acc atc ttt 528
70 Leu Leu Ser Tyr Phe Gly Thr Pro Thr Trp Gln Thr Val Thr Ile Phe
71           165          170          175
73 gtg gcg gga gtg ctc acc gcc tcg ctc acc atc tgg aag aag atg ggc 576
74 Val Ala Gly Val Leu Thr Ala Ser Leu Thr Ile Trp Lys Lys Met Gly
75           180          185          190
77 tga
80 <210> SEQ ID NO: 2
81 <211> LENGTH: 192
82 <212> TYPE: PRT
83 <213> ORGANISM: Homo sapiens
85 <400> SEQUENCE: 2
86 Met Asp Gly Ser Gly Glu Gln Pro Arg Gly Gly Pro Thr Ser Ser
87   1          5          10          15
88 Glu Gln Ile Met Lys Thr Gly Ala Leu Leu Leu Gln Gly Phe Ile Gln
89     20          25          30
90 Asp Arg Ala Gly Arg Met Gly Gly Glu Ala Pro Glu Leu Ala Leu Asp
91     35          40          45
92 Pro Val Pro Gln Asp Ala Ser Thr Lys Lys Leu Ser Glu Cys Leu Lys
93     50          55          60
94 Arg Ile Gly Asp Glu Leu Asp Ser Asn Met Glu Leu Gln Arg Met Ile
95   65          70          75          80
96 Ala Ala Val Asp Thr Asp Ser Pro Arg Glu Val Phe Phe Arg Val Ala
97     85          90          95
98 Ala Asp Met Phe Ser Asp Gly Asn Phe Asn Trp Gly Arg Val Val Ala
99     100         105         110
100 Leu Phe Tyr Phe Ala Ser Lys Leu Val Leu Lys Ala Leu Cys Thr Lys
101    115         120         125
102 Val Pro Glu Leu Ile Arg Thr Ile Met Gly Trp Thr Leu Asp Phe Leu
103    130         135         140
104 Arg Glu Arg Leu Leu Gly Trp Ile Gln Asp Gln Gly Gly Trp Asp Gly
105 145          150          155          160
106 Leu Leu Ser Tyr Phe Gly Thr Pro Thr Trp Gln Thr Val Thr Ile Phe
107     165         170         175
108 Val Ala Gly Val Leu Thr Ala Ser Leu Thr Ile Trp Lys Lys Met Gly
109     180         185         190
113 <210> SEQ ID NO: 3
114 <211> LENGTH: 999
115 <212> TYPE: DNA
116 <213> ORGANISM: Homo sapiens
118 <220> FEATURE:
119 <221> NAME/KEY: CDS
120 <222> LOCATION: (1)..(999)
122 <400> SEQUENCE: 3

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/550,280

DATE: 10/06/2005

TIME: 11:41:37

Input Set : A:\Sequence Listing 2005_1500A.txt
 Output Set: N:\CRF4\10062005\J550280.raw

123	atg	gcc	tgc	gat	tgc	cgt	ggt	gat	tgt	ttt	tgt	ggt	atg	agc	aag	48	
124	Met	Ala	Cys	Asp	Cys	Arg	Gly	Asp	Cys	Phe	Cys	Gly	Gly	Met	Ser	Lys	
125	1				5				10					15			
127	ggc	gag	gaa	ctg	ttc	act	ggc	gtg	gtc	cca	att	ctc	gtg	gaa	ctg	gat	96
128	Gly	Glu	Glu	Leu	Phe	Thr	Gly	Val	Val	Pro	Ile	Leu	Val	Glu	Leu	Asp	
129					20				25					30			
131	ggc	gat	gtg	aat	ggg	cac	aaa	ttt	tct	gtc	agc	gga	gag	ggt	gaa	ggt	144
132	Gly	Asp	Val	Asn	Gly	His	Lys	Phe	Ser	Val	Ser	Gly	Glu	Gly	Glu	Gly	
133					35				40					45			
135	gat	gcc	aca	tac	gga	aag	ctc	acc	ctg	aaa	ttc	atc	tgc	acc	act	gga	192
136	Asp	Ala	Thr	Tyr	Gly	Lys	Leu	Thr	Leu	Lys	Phe	Ile	Cys	Thr	Thr	Gly	
137					50				55					60			
139	aag	ctc	cct	gtg	cca	tgg	cca	aca	ctg	gtc	act	acc	ttc	acc	tat	ggc	240
140	Lys	Leu	Pro	Val	Pro	Trp	Pro	Thr	Leu	Val	Thr	Thr	Phe	Thr	Tyr	Gly	
141					65				70					75		80	
143	gtg	cag	tgc	ttt	tcc	aga	tac	cca	gac	cat	atg	aag	cag	cat	gac	ttt	288
144	Val	Gln	Cys	Phe	Ser	Arg	Tyr	Pro	Asp	His	Met	Lys	Gln	His	Asp	Phe	
145					85				90					95			
147	ttc	aag	agc	gcc	atg	ccc	gag	ggc	tat	gtg	cag	gag	aga	acc	atc	ttt	336
148	Phe	Lys	Ser	Ala	Met	Pro	Glu	Gly	Tyr	Val	Gln	Glu	Arg	Thr	Ile	Phe	
149					100				105					110			
151	ttc	aaa	gat	gac	ggg	aac	tac	aag	acc	cgc	gct	gaa	gtc	aag	ttc	gaa	384
152	Phe	Lys	Asp	Asp	Gly	Asn	Tyr	Lys	Thr	Arg	Ala	Glu	Val	Lys	Phe	Glu	
153					115				120					125			
155	ggt	gac	acc	ctg	gtg	aat	aga	atc	gag	ctg	aag	ggc	att	gac	ttt	aag	432
156	Gly	Asp	Thr	Leu	Val	Asn	Arg	Ile	Glu	Leu	Lys	Gly	Ile	Asp	Phe	Lys	
157					130				135					140			
159	gag	gat	gga	aac	att	ctc	ggc	cac	aag	ctg	gaa	tac	aac	tat	aac	tcc	480
160	Glu	Asp	Gly	Asn	Ile	Leu	Gly	His	Lys	Leu	Glu	Tyr	Asn	Tyr	Asn	Ser	
161					145				150					155		160	
163	cac	aat	gtg	tac	atc	atg	gcc	gac	aag	caa	aag	aat	ggc	atc	aag	gtc	528
164	His	Asn	Val	Tyr	Ile	Met	Ala	Asp	Lys	Gln	Lys	Asn	Gly	Ile	Lys	Val	
165					165				170					175			
167	aac	ttc	aag	atc	aga	cac	aac	att	gag	gat	gga	tcc	gtg	cag	ctg	gcc	576
168	Asn	Phe	Lys	Ile	Arg	His	Asn	Ile	Glu	Asp	Gly	Ser	Val	Gln	Leu	Ala	
169					180				185					190			
171	gac	cat	tat	caa	cag	aac	act	cca	atc	ggc	gac	ggc	cct	gtg	ctc	ctc	624
172	Asp	His	Tyr	Gln	Gln	Asn	Thr	Pro	Ile	Gly	Asp	Gly	Pro	Val	Leu	Leu	
173					195				200					205			
175	cca	gac	aac	cat	tac	ctg	tcc	acc	cag	tct	gcc	ctg	tct	aaa	gat	ccc	672
176	Pro	Asp	Asn	His	Tyr	Leu	Ser	Thr	Gln	Ser	Ala	Leu	Ser	Lys	Asp	Pro	
177					210				215					220			
179	aac	gaa	aag	aga	gac	cac	atg	gtc	ctg	ctg	gag	ttt	gtg	acc	gct	gct	720
180	Asn	Glu	Lys	Arg	Asp	His	Met	Val	Leu	Leu	Glu	Phe	Val	Thr	Ala	Ala	
181					225				230					235		240	
183	ggg	atc	aca	cat	ggc	atg	gac	gag	ctg	tac	aag	gcc	ctt	ttc	tac	ttt	768
184	Gly	Ile	Thr	His	Gly	Met	Asp	Glu	Leu	Tyr	Lys	Ala	Leu	Phe	Tyr	Phe	
185					245				250					255			
187	gcc	agc	aaa	ctg	ctg	ctc	aag	gcc	ctg	tgc	acc	aag	gtg	ccg	ctg		816

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/550,280

DATE: 10/06/2005

TIME: 11:41:37

Input Set : A:\Sequence Listing 2005_1500A.txt
 Output Set: N:\CRF4\10062005\J550280.raw

```

188 Ala Ser Lys Leu Val Leu Lys Ala Leu Cys Thr Lys Val Pro Glu Leu
189      260          265          270
190 atc aga acc atc atg ggc tgg aca ttg gac ttc ctc cgg gag cgg ctg   864
191 Ile Arg Thr Ile Met Gly Trp Thr Leu Asp Phe Leu Arg Glu Arg Leu
192      275          280          285
194 ttg ggc tgg atc caa gac cag ggt ggt tgg gac ggc ctc ctc tcc tac   912
195 Leu Gly Trp Ile Gln Asp Gln Gly Gly Trp Asp Gly Leu Leu Ser Tyr
196      290          295          300
198 ttt ggg acg ccc acg tgg cag acc gtg acc atc ttt gtg gcg gga gtg   960
199 Phe Gly Thr Pro Thr Trp Gln Thr Val Thr Ile Phe Val Ala Gly Val
200 305          310          315          320
202 ctc acc gcc tca ctc acc atc tgg aag aag atg ggc tga
203 Leu Thr Ala Ser Leu Thr Ile Trp Lys Lys Met Gly
204      325          330
207 <210> SEQ ID NO: 4
208 <211> LENGTH: 332
209 <212> TYPE: PRT
210 <213> ORGANISM: Homo sapiens
212 <400> SEQUENCE: 4
213 Met Ala Cys Asp Cys Arg Gly Asp Cys Phe Cys Gly Gly Met Ser Lys
214      1           5           10          15
215 Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val Glu Leu Asp
216      20          25          30
217 Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu Gly Glu Gly
218      35          40          45
219 Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys Thr Thr Gly
220      50          55          60
221 Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe Thr Tyr Gly
222      65          70          75          80
223 Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln His Asp Phe
224      85          90          95
225 Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg Thr Ile Phe
226      100         105         110
227 Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val Lys Phe Glu
228      115         120         125
229 Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile Asp Phe Lys
230      130         135         140
231 Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn Tyr Asn Ser
232 145          150          155          160
233 His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly Ile Lys Val
234      165         170         175
235 Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val Gln Leu Ala
236      180          185          190
237 Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro Val Leu Leu
238      195         200         205
239 Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser Lys Asp Pro
240      210          215          220
241 Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val Thr Ala Ala
242 225          230          235          240

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/550,280

DATE: 10/06/2005

TIME: 11:41:37

Input Set : A:\Sequence Listing 2005_1500A.txt
 Output Set: N:\CRF4\10062005\J550280.raw

```

243 Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys Ala Leu Phe Tyr Phe
244          245          250          255
245 Ala Ser Lys Leu Val Leu Lys Ala Leu Cys Thr Lys Val Pro Glu Leu
246          260          265          270
247 Ile Arg Thr Ile Met Gly Trp Thr Leu Asp Phe Leu Arg Glu Arg Leu
248          275          280          285
249 Leu Gly Trp Ile Gln Asp Gln Gly Gly Trp Asp Gly Leu Leu Ser Tyr
250          290          295          300
251 Phe Gly Thr Pro Thr Trp Gln Thr Val Thr Ile Phe Val Ala Gly Val
252 305          310          315          320
253 Leu Thr Ala Ser Leu Thr Ile Trp Lys Lys Met Gly
254          325          330
258 <210> SEQ ID NO: 5
259 <211> LENGTH: 987
260 <212> TYPE: DNA
261 <213> ORGANISM: Homo sapiens
263 <220> FEATURE:
264 <221> NAME/KEY: CDS
265 <222> LOCATION: (1)..(987)
267 <400> SEQUENCE: 5
268 atg gcc tgc aac ggt cgt tgc ggt ggt atg agc aag ggc gag gaa ctg      48
269 Met Ala Cys Asn Gly Arg Cys Gly Gly Met Ser Lys Gly Glu Glu Leu
270   1          5          10          15
272 ttc act ggc gtg gtc cca att ctc gtg gaa ctg gat ggc gat gtg aat      96
273 Phe Thr Gly Val Val Pro Ile Leu Val Glu Leu Asp Gly Asp Val Asn
274   20          25          30
275 ggg cac aaa ttt tct gtc agc gga gag ggt gaa ggt gat gcc aca tac      144
276 Gly His Lys Phe Ser Val Ser Gly Glu Gly Glu Gly Asp Ala Thr Tyr
277   35          40          45
279 gga aag ctc acc ctg aaa ttc atc tgc acc act gga aag ctc cct gtg      192
280 Gly Lys Leu Thr Leu Lys Phe Ile Cys Thr Thr Gly Lys Leu Pro Val
281   50          55          60
283 cca tgg cca aca ctg gtc act acc ttc acc tat ggc gtg cag tgc ttt      240
284 Pro Trp Pro Thr Leu Val Thr Thr Phe Thr Tyr Gly Val Gln Cys Phe
285   65          70          75          80
287 tcc aga tac cca gac cat atg aag cag cat gac ttt ttc aag agc gcc      288
288 Ser Arg Tyr Pro Asp His Met Lys Gln His Asp Phe Phe Lys Ser Ala
289   85          90          95
291 atg ccc gag ggc tat gtg cag gag aga acc atc ttt ttc aaa gat gac      336
292 Met Pro Glu Gly Tyr Val Gln Glu Arg Thr Ile Phe Phe Lys Asp Asp
293   100         105         110
295 ggg aac tac aag acc cgc gct gaa gtc aag ttc gaa ggt gac acc ctg      384
296 Gly Asn Tyr Lys Thr Arg Ala Glu Val Lys Phe Glu Gly Asp Thr Leu
297   115         120         125
299 gtg aat aga atc gag ctg aag ggc att gac ttt aag gag gat gga aac      432
300 Val Asn Arg Ile Glu Leu Lys Gly Ile Asp Phe Lys Glu Asp Gly Asn
301   130         135         140
303 att ctc ggc cac aag ctg gaa tac aac tat aac tcc cac aat gtg tac      480
304 Ile Leu Gly His Lys Leu Glu Tyr Asn Ser His Asn Val Tyr

```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 10/06/2005
PATENT APPLICATION: US/10/550,280 TIME: 11:41:38

Input Set : A:\Sequence Listing 2005_1500A.txt
Output Set: N:\CRF4\10062005\J550280.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:19; N Pos. 1,2
Seq#:22; N Pos. 1,2
Seq#:24; N Pos. 1,2,3,4
Seq#:27; N Pos. 1,2,3,4

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/550,280

DATE: 10/06/2005

TIME: 11:41:38

Input Set : A:\Sequence Listing 2005_1500A.txt
Output Set: N:\CRF4\10062005\J550280.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:420 M:283 W: Missing Blank Line separator, <220> field identifier
L:448 M:283 W: Missing Blank Line separator, <400> field identifier
L:476 M:283 W: Missing Blank Line separator, <400> field identifier
L:571 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:609 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:636 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:667 M:283 W: Missing Blank Line separator, <220> field identifier
L:673 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0